

REMARKS

Reconsideration of the present application as amended is respectfully requested. Claims 1, 5, 12, and 15 have been amended. Claims 1-16 are currently pending.

Claims 1-4, 6, 12, and 13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art in the instant application in view of U.S. Patent No. 6,263,030 B1 to Khayrallah (“Khayrallah”). Khayrallah describes an equalizer for compensating for changing channel conditions caused by movement of a mobile communication device at varying speeds. Figure 4 of Khayrallah illustrates a block diagram of a demodulator/equalizer 74 including an estimator 84, a first channel tracker 86, a second channel tracker 88, an error control decoder 90, and a tracker choice block 92. Column 7, lines 38-column 8, line 15 of Khayrallah describes that the first channel tracker 86 is tuned to a high speed, while the second channel tracker 88 is tuned to a low speed. Khayrallah further describes that in response to receiving a reliability information signal, the tracker choice block 92 activates a trigger 104 to select one of the first channel tracker 86 and the second channel tracker 88 to produce a channel estimate signal. Applicant respectfully submits that during operation of the equalizer described in Khayrallah, one of the first channel tracker 86 and the second channel tracker 88 is always producing a channel estimate signal and is in an enabled state.

Independent claim 1 has been amended to include the feature of “wherein the enabling control signal is adapted to switch the channel tracker from a disabled state, in which disabled state no channel tracker within the digital communication receiver is enabled, to an enabled state, in which enabled state the updated channel estimate is produced.” Support for the amendments to independent claim 1 may be found at at least page 9, lines 4-19 of the application as originally filed. Applicant respectfully submits that Khayrallah fails to teach or suggest at least this feature of independent claim 1 as amended.

As previously discussed, Applicant respectfully submits that during operation of the equalizer described in Khayrallah, one of the first channel tracker 86 and the second channel tracker 88 is always producing a channel estimate signal and is in an enabled state. Accordingly, Applicant respectfully submits that Khayrallah fails to teach or suggest a control signal adapted to switch a channel tracker from a disabled state in which no channel tracker within a digital

communication receiver is enabled, to an enabled state in which an updated channel estimate is produced. Applicant respectfully submits that independent claim 1 as amended distinguishes over admitted prior art in view of Khayrallah and requests that the 35 U.S.C. 103(a) rejection of independent claim 1 be withdrawn.

Claims 2-4 and 6 are dependent upon and include the limitations of independent claim 1. For at least the reasons as discussed with respect to independent claim 1, Applicant respectfully submits that claims 2-4 and 6 distinguish over admitted prior art in view of Khayrallah and requests that the 35 U.S.C. 103(a) rejection of claims 2-4 and 6 be withdrawn.

Independent claim 12 has been amended to include the feature of “conditionally, if the predetermined criterion is not met, switching a channel tracker from a disabled state, in which disabled state no channel tracker within the digital communication receiver is enabled, to an enabled state, in which enabled state an updated channel estimate is produced from the received signal and the sequence of decided symbols.” Support for the amendments to independent claim 12 may be found at at least page 9, lines 4-19 of the application as originally filed. For similar reasons as those discussed with respect to independent claim 1, Applicant respectfully submits that Khayrallah fails to teach or suggest at least this feature of independent claim 12 as amended. Applicant respectfully submits that independent claim 12 as amended distinguishes over admitted prior art in view of Khayrallah and requests that the 35 U.S.C. 103(a) rejection of independent claim 12 be withdrawn.

Claim 13 is dependent upon and includes the limitations of independent claim 12. For at least the reasons as discussed with respect to independent claim 12, Applicant respectfully submits that claim 13 distinguishes over admitted prior art in view of Khayrallah and requests that the 35 U.S.C. 103(a) rejection of claim 13 be withdrawn.

Claims 15 and 16 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,370,189 B1 to Morrison et al. (“Morrison”). Morrison describes an apparatus and method for which variable delay is provided for channel tracking. Figure 2 of Morrison illustrates a channel tracker 34 which includes a delay determination circuit 50 and a channel tracker circuit 52. Column 5, lines 39-60 of Morrison describe the channel tracker circuit as updating a channel estimate 39 with a variable delay based upon a symbol estimate 36 and an

indication of the quality of the symbol estimate 38 received from a demodulator 32 and a received signal 30. Morrison further describes the channel tracker 34 as providing a means for comparing the indication of the quality of the symbol estimate 38 to an acceptance value and for generating an updated channel estimate based on the symbol estimate if the indication of the quality of the symbol estimate meets the acceptance value. Morrison further describes that if the indication of quality does not meet the acceptance value, the channel tracker 34 provides a means for generating an updated channel estimate based on a previous symbol estimate having an indication of quality which meets the acceptance value. Accordingly, the channel tracker 34 of Morrison continuously produces an updated channel estimate.

Independent claim 15 has been amended to include the feature of "conditionally, if the comparison indicates a difference smaller than a predetermined criterion, switching a channel tracker from an enabled state, in which enabled state an updated channel estimate is produced from the received signal and the sequence of decided symbols, to a disabled state, in which disabled state no channel tracker within the digital communication receiver is enabled." Support for the amendments to independent claim 15 may be found at at least page 9, lines 4-19 of the application as originally filed. As discussed, the channel tracker 34 of Morrison continuously produces an updated channel estimate, and is thus always in an enabled state. Applicant respectfully submits that Morrison fails to teach or suggest switching a channel tracker from an enabled state in which an updated channel estimate is produced, to a disabled state in which no channel tracker within a digital communication receiver is enabled. Applicant respectfully submits that independent claim 15 as amended distinguishes over Morrison and requests that the 35 U.S.C. 103(a) rejection of independent claim 15 be withdrawn.

Claim 16 is dependent upon and includes the limitations of independent claim 15. For at least the reasons as discussed with respect to independent claim 15, Applicant respectfully submits that claim 16 distinguishes Morrison and requests that the 35 U.S.C. 103(a) rejection of claim 16 be withdrawn.

Claims 5 and 14 where objected to as being dependent upon a rejected base claim, but were indicated as allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant wishes to thank the Examiner for the

indication of allowable subject matter with respect to claims 5 and 14. Claim 5 has been amended to change the term “second channel tracker” to “second channel estimator.” Support for the amendments to claim 5 can be found in at least Figure 4 and at page 10, line 34 to page 11, line 22 of the application as originally filed.

Claims 7-11 have been allowed. Applicant wishes to thank the Examiner for the allowance of claims 7-11.

In view of the above, each of the presently-pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

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Respectfully submitted,

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